

CATALOGUE OF BALDWIN SPENCER EARTHWORM TYPES IN
THE NATIONAL MUSEUM OF VICTORIA, AUSTRALIA

By R. L. JENSZ

Honorary Associate in Invertebrates

and B. J. SMITH

Curator of Invertebrates

Abstract

W. Baldwin Spencer described 96 new species, one subspecies and two varieties of earthworms between 1892 and 1900. His earthworm collection was donated to the National Museum of Victoria in 1916. The species are catalogued with the number and condition of the type specimens, the locality, reference, previously unpublished Spencer serial numbers and habitat data. Lectotypes for 45 species are designated.

Introduction

Between 1892 and 1900 Professor (later Sir) W. Baldwin Spencer, Professor of Biology at the University of Melbourne, and later Director of the National Museum of Victoria, described 96 new species, one subspecies and two varieties of earthworms from Victoria, Tasmania and Queensland. He also amassed a large collection of Australian earthworms in the Zoology Department at the University. This collection was donated by Spencer to the National Museum on 23 March 1916. As a recent search in that department and in other Museum collections in Australia failed to reveal any Spencer earthworm material, it is concluded that the entire collection was donated at this time. Before the present study, the types of 41 species were known, including those of four species questionably so. A complete cataloguing of the Spencer earthworm collection was undertaken to locate all probable type material, to document it, and to assess its value for future study. Spencer's original notes, with an unpublished key to his specimen numbering system, were located in the Museum archives and these gave an accurate guide as to which specimens were used in the descriptions of his species. As a result, the type specimens of 41 species previously so labelled have been confirmed as types, including the questioned type specimens of four species. In addition, type material of a further 28 species has been found. Of the 69 species for which type material exists, 15 are represented by material in such poor condition that all further work on it is impossible. Type specimens of the 30 remaining species are presumed lost. All material has been transferred to fresh 70 per cent alcohol.

The original generic names are used, arranged alphabetically, and under each genus the specific names are so arranged. In the original descriptions, Spencer did not designate types. He gave exact localities and habitats, both in his papers and on his labels, and these were of considerable assistance in identifying type material. However, the principal means used was the series of numbers included with each specimen. The catalogue also includes specimens determined by Spencer, but which had not been collected at the time his papers were written, or were present but not used in the preparation of those papers. If the Spencer number with a specimen shows it to have been used in the type description, plus the agreement of the type

locality, collector's name, date of collection, and species name all in Spencer's handwriting, the specimen is accepted as type material. As no primary types were designated by Spencer, all such specimens are syntypes. A lectotype has been chosen from the syntypes when (a) In good or reasonable condition, (b) Complete (dissected, when available), (c) Documentation adequate. Lectotypes have been separated from paralectotypes. When none of the type material complies with the above criteria the series is left as syntypes.

The condition of the specimens is defined as follows:

Good—suitable for detailed study, including dissection

Reasonable—probably suitable as above

Fair—doubtfully suitable for detailed study and of limited use for dissection

Poor—little use for study

Bad—no use for study

Details are given of specimens other than types, but identified by Spencer. Unless otherwise stated, the specimens were collected by Spencer. Page numbers given with the Spencer number or in brackets in the text in the catalogue refer to the pages in Spencer's notes. The abbreviations for States are as follows: Vict. = Victoria, Tasm. = Tasmania, Qd. = Queensland.

Genus *Cryptodrilus* Fletcher, 1886

Cryptodrilus canpestris Spencer, 1895

Proc. Roy. Soc. Vict. 7: 39, figs. 13-15.

SYNTYPES: G48, a dissected entire worm, four complete specimens and one fragment. Poor (shrivelled).

LOCALITY: Parattah, Tasm., in damp earth under logs, collected February 1893.

SPENCER NUMBER: C sp 6 T (p. 8).

Cryptodrilus cooraniensis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 42-43, figs. 34-36.

SYNTYPES: G43, one complete specimen, questionably a syntype. Reasonable. G44, a dissected entire specimen and a number of fragments. Bad. G45, specimen completely fragmented. Bad.

LOCALITY: Cooran, Qd., collected October 1891.

SPENCER NUMBER: G43, Peri sp 8 ? (Not listed in Spencer notes). G44, C sp 4 Q; G45, C sp 8 Q (p. 7).

NOTES: None has been previously recognized as type material. G44 was used in MS preparation (p. 7). The remaining specimens are included here as they were collected at the same time and in the same locality. While G45 appears to have been used in MS preparation there is no indication that G43 was. The latter assumes importance as it is the only original specimen in reasonable condition. Unfortunately its position is ambiguous as the number is not recorded in the Spencer notes whereas a similar number, Peri sp 8 Q, does appear under the genus *Diporochaeta* (p. 28).

Cryptodrilus dubius Spencer, 1892

Proc. Roy. Soc. Vict. 4: 136-137, figs. 13-15, 67.

LECTOTYPE: G35, an entire specimen. Length in spirit 108 mm. Good.

PARALECTOTYPES: G1434, three entire specimens and three fragments formerly included with G35. Good.

LOCALITY: Vict., given on an original label. Spencer writes (p. 137) 'This probably comes from Croajingolong but the distinct locality other than Victoria is not noted'. It appears that Spencer did not collect the specimens. The types of three other species were collected at Croajingolong in January 1889, during an expedition of the Field Naturalists' Club of Victoria. Perhaps Spencer had reason to believe that these specimens were collected on the same expedition.

SPENCER NUMBER: C sp ? 5 (p. 7).

NOTES: Specimens G35 were previously recorded as type material although the original label (C sp ? 5) is now missing. The label is not located with any other specimen in the collection and is probably correctly identified with G35.

Cryptodrilus ellisii Spencer, 1895

Proc. Roy. Soc. Vict. 7: 42-43, figs. 22-24.

SYNTYPES: G32, four dissected entire specimens and two complete specimens. Poor. G33, specimens missing from collection, presumed lost.

LOCALITY: Dec Bridge, Tasm., under logs and stones, collected January 1893.

SPENCER NUMBER: C sp 9 T and C sp 10 T (p. 8).

NOTES: The National Museum label records specimens G32 as questionably type material. This doubt probably arose from the date of collection on the museum filing card 'Jan. 1895', coupled with the fact that the type description was read in March, 1894, and published in January, 1895. An original label (which appears to be by Spencer) shows the date poorly written but probably 'Jan. /93'. This date would be consistent with Spencer's collecting trip 'early part of 1893' (p. 33). It is suggested here that the correct date is 1893, that the 3 has previously been misread as a 5, and that these specimens are types. Specimens G33 are types not previously recognized as such but are now missing. They have been lost since coming to the museum as a filing card notes that five specimens were in the jar.

Cryptodrilus frenchi Spencer, 1892

Proc. Roy. Soc. Vict. 4: 135-136, figs. 10-12, 66.

TYPE SPECIMENS: Not present in National Museum, presumed lost.

LOCALITY: Croajingolong, E. Gippsland, Vict.

SPENCER NUMBER: C sp ? a (p. 7).

Cryptodrilus gippslandicus Spencer, 1892

Proc. Roy. Soc. Vict. 4: 132-133, figs. 1-3, 63.

LECTOTYPE: G57, a dissected entire specimen. Length in spirit 90 mm. Reasonable.

PARALECTOTYPES: G1405, two complete specimens and two fragments, one of which has been dissected. These were formerly included with G57. Reasonable.

LOCALITY: Croajingolong, E. Gippsland, Vict. The specimens were collected January 1889.

SPENCER NUMBER: C sp ? 3 (p. 7).

Cryptodrilus hobartensis Spencer, 1895

Proc. Roy. Soc. Vict. 7: 37-38, figs. 10-12.

LECTOTYPE: G50, a complete, undissected specimen. Length in spirit 28 mm. Reasonable.

PARALECTOTYPES: G49, a dissected entire specimen, seven complete specimens and five fragments. Poor to fair (dried). G51, four complete specimens, one partly dissected. Fair (dried).

LOCALITY: G49, Mt Wellington, Tasm., collected by A. Morton, July 1892. G50 and G51, Parratah, Tasm., G50, January 1893 and G51, February 1893.

SPENCER NUMBER: C sp 5 T (p. 8). All three jars bear this code number.

NOTES: None has been previously recognized as type material.

Cryptodrilus insularis Spencer, 1895

Proc. Roy. Soc. Vict. 7: 41-42, figs. 19-21.

LECTOTYPE: G39, a complete undissected specimen. Length in spirit 26 mm. Good.

PARALECTOTYPES: None.

LOCALITY: Parratah, Tasm., collected February 1893.

SPENCER NUMBER: C sp 8 T (p. 8).

NOTE: The specimen has not been previously recognized as type material.

Cryptodrilus intermedius Speneer, 1892

Proc. Roy. Soc. Vict. 4: 133-134, figs. 4-6, 64.

LECTOTYPE: G58, a dissected entire specimen. Length in spirit 100 mm. Reasonable.

PARALECTOTYPES: G1406, seven complete specimens formerly included with G58. Reasonable.

LOCALITY: S. Warragul, Viet. collected by W. Mann, July 1891.

SPENCER NUMBER: C sp ? 12 (p. 7).

OTHER SPECIMENS: G86 contains 10 complete specimens and a fragment, from the type locality dated July 1892, and found 'In black, very heavy swamp soil, about 12 inches down'. Their condition is fair but several are fragmenting badly. These specimens were found after the original paper was read and so were not used therein. However, they are listed in the Speneer Notes (p. 7) as 'MSS', perhaps in error. Their number is C sp ? 11. G72 is questionably referred to this species. There are two specimens thought to be different forms or at different stages. There is no included data and their condition is reasonable.

Cryptodrilus irregularis Speneer, 1895

Proc. Roy. Soc. Vict. 7: 34-35, figs. 1-3.

LECTOTYPE: G46, a dissected entire specimen. Length in spirit 145 mm. Reasonable.

PARALECTOTYPES: None, although the description suggests that more than one specimen was found.

LOCALITY: Table Cape, Tasm., found under logs, no date.

SPENCER NUMBER: C sp 1 T (p. 8).

Cryptodrilus lucasi Spencer, 1892

Proc. Roy. Soc. Vict. 4: 143, figs. 28-30, 72.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Goulburn River, Tallarook, Vict., collected by A. H. S. Lucas, no date.

SPENCER NUMBER: C sp ? V (p. 7).

OTHER SPECIMENS: G84 is the only representative of this species in the collection. It contains two fragments in fair condition, without record of locality, date or collector.

Cryptodrilus macedonensis Spencer, 1892

Proc. Roy. Soc. Vict. 4: 138-139, figs. 16-18, 68.

LECTOTYPE: G47, an undissected complete specimen. Length in spirit 56 mm. Reasonable.

PARALECTOTYPES: G1407, four fragments formerly included with G47. Reasonable.

LOCALITY: Mt Macedon, Vict., collected by H. R. Hogg and Spencer in June 1891.

SPENCER NUMBER: C sp ? 6 (p. 7).

Cryptodrilus minor Spencer, 1892

Proc. Roy. Soc. Vict. 4: 144, figs. 31-33, 73.

LECTOTYPE: G56, a dissected entire specimen. Length in spirit 110 mm. Reasonable.

PARALECTOTYPES: G1435, two complete specimens and two fragments formerly included with G56. Reasonable.

LOCALITY: Ellinbank, South Warragul, Vict., collected by W. Mann in August 1891.

SPENCER NUMBER: C sp ? 14 (p. 7).

Cryptodrilus mortoni Spencer, 1895

Proc. Roy. Soc. Vict. 7: 36-37, figs. 7-9.

SYNTYPE: G83, one entire dissected specimen. Poor to fair (dried).

LOCALITY: Dee Bridge and Mount Wellington, Tasm., under logs and stones. G83 was collected by A. Morton in 1892, the locality being recorded as 'Tasmania'.

SPENCER NUMBER: C sp 4 T (p. 8).

NOTES: The specimen has not been previously recognized as type material.

Cryptodrilus narrensis Spencer, 1892

Proc. Roy. Soc. Vict. 4: 142, figs. 25-27, 71.

SYNTYPES: G53, dissected entire specimen and two complete undissected specimens. Poor.

LOCALITY: Narre Warren, Vict., very abundant under logs in wet weather, collected by C. French and Spencer, no date.

SPENCER NUMBER: C sp ? 15a (p. 7).

NOTES: There is no label recording presentation to the National Museum as part of the Spencer Collection, but other labels agree in form and writing with those of this collection. The Spencer Notes also refer to specimens registered as 'C sp ? Narrewarren' which it appears were used with the above specimens to prepare the type description. There are no specimens with this label.

Cryptodrilus officeri Spencer, 1895

Proc. Roy. Soc. Vict. 7: 44-45, figs. 28-30.

TYPE SPECIMENS: G80 is recorded on a catalogue card as having four specimens. However, the jar is now empty and the specimens are presumed lost.

LOCALITY: King River Valley, Tasm., collected by C. S. Officer in January 1894.

SPENCER NUMBER: C sp X 4 King R T (p. 8).

Cryptodrilus polynephricus Speneer, 1895

Proc. Roy. Soc. Vict. 7: 35-36, figs. 4-6.

LECTOTYPE: G41, a dissected entire specimen. Length in spirit 97 mm. Reasonable.

PARALECTOTYPE: G1436, four complete specimens formerly included with G41. Reasonable. G40, one entire dissected specimen. Bad (dried).

LOCALITY: Mt Wellington, Tasm. G41 was collected by A. Morton in July 1892. The type locality is extended by Spencer to include Hobart and Parattah. G40 contains two labels stating the localities as Mt Wellington by A. Morton in February 1892 and Parattah 1892.

SPENCER NUMBER: G40 and G41 both contain the same number, C sp 3 T (p. 8).

NOTES: The specimens were not previously recognized as type material. G40 includes two Spencer labels: C/sp 3 T — Parattah Feb./'92 and C sp 3 T (Mt Wellington) AM/'92.

Cryptodrilus queenslandica Spencer, 1900

Proc. Roy. Soc. Vict. 13: 41-42, figs. 31-33.

LECTOTYPE: G593, a dissected entire specimen. Length in spirit 270 mm. Reasonable.

PARALECTOTYPES: G1448, two complete dissected specimens, six complete specimens and six fragments, formerly included with G593. Reasonable. G68, five complete specimens and five fragments. Poor. G69, 11 complete specimens and two fragments. Fair. G70, one complete specimen. Fair.

LOCALITY: G593, Dundergan, near Maryborough, Qd., collected by P. R. A. O'Brien, no date. G68 was collected at Toowoomba, Qd., by D. Lc Souef in October 1891. G69 was collected at Jandina, Qd., and G70 was collected at 'Serub behind Gayndah', Qd., also in October 1891 presumably by D. Lc Souef.

SPENCER NUMBERS: G593, Mega 1 X Q (p. 7). G68, G69 and G70, all under *Crypto sp ? 5 Q* (p. 7).

NOTES: The specimens have not previously been recognized as type material. G68, G69 and G70 are included with the type material as they are noted in Spencer's Notes (p. 7) as *C sp ? 5 Q* in MSS.

OTHER SPECIMENS: G79, Spencer number C sp 5 Q, is referred to as not in MSS (p. 10). It was found at Cooran, Qd., in October 1891 and contains two fragments in fair condition.

Cryptodrilus shephardi Spencer, 1900

Proc. Roy. Soc. Vict. 13: 40-41, figs. 28-30.

LECTOTYPE: G34, a dissected entire specimen. Length in spirit 157 mm. Reasonable.

PARALECTOTYPES: G1409, two complete specimens formerly included with G34. Reasonable.

LOCALITY: Horsham, Vict., collected by J. Shephard in October 1892.

SPENCER NUMBER: C sp la V (p. 7).

OTHER SPECIMENS: One jar, G74, from which the specimen is missing, bears the same Spencer number as the type material. It contained one specimen collected by D. Le Soeuf on 3/10/1892 at 'Mallee district in Dimboola, Victoria'. Although it would appear to have been included in the MSS, the type description does not refer to this collector or date.

Cryptodrilus tanjilensis Spencer, 1892

Proc. Roy. Soc. Vict. 4: 134-135, figs. 7-9, 65.

LECTOTYPE: G54, a dissected entire specimen. Length in spirit 160 mm. Good.

PARALECTOTYPES: G55, one dissected entire specimen, one complete specimen and one fragment. Reasonable to good.

LOCALITY: Tanjil Track, near the source of the Yarra River, Vict., collected November 1890.

SPENCER NUMBERS: G54, C sp 2 (p. 7). G55, C sp 9 (= sp 1). See note below.

NOTES: G54 was previously known to be type material. Other specimens apparently used in the MSS were 'C sp ? 9' and 'C sp 5a V' (p. 7). Much of the '5' in the latter number is missing but the remains suggest '5'. No specimens bearing either number are in the collection now. Another jar, G55, which is considered here to contain paralectotypes bears the label C sp 9 (= sp 1). It is possible that this is the missing specimen C sp ? 9. Whether this is so or not, the material appears to have been collected by Spencer at the type locality and was identified by him.

Cryptodrilus tessellatus Spencer 1892

Proc. Roy. Soc. Vict. 7: 40-41, figs. 16-18.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Mount Olympus, Lake St. Clair, Tasm.

SPENCER NUMBER: C sp 7 T (p. 8).

Cryptodrilus victoriae Spencer, 1892

Proc. Roy. Soc. Vict. 4: 139-140, figs. 19-21, 69.

LECTOTYPE: G36, a large dissected entire specimen. Length in spirit 102 mm. Reasonable.

PARALECTOTYPES: G1410, a small complete specimen formerly included with G36. Reasonable.

LOCALITY: Warburton, Yarra Valley, Vict., collected by Dendy, no date.

SPENCER NUMBER: C sp? I (p. 7).

OTHER SPECIMENS: Two jars in the collection are not considered to contain type specimens as their locality differs from that published, but the dates of collection are later. Some confusion is caused by Spencer's notes implying that they were used in the MSS. The specimens concerned are G71 (C sp 2X) which contains one entire dissected specimen, five complete specimens and three fragments in reasonable condition, and G73 (C sp X3) which contains two complete specimens in good condition. The former were collected at Mt Baw Baw in 1893 by Frost, and the latter were collected at Mount Arnold (collector unknown) in 1894. The Mount Arnold specimens have with them a note in Spencer's handwriting which does not appear to have been published previously. It is quoted here in full, but two words could not be read and three are questionable. 'Mt Arnold, Victoria near Marysville. Under and in rotten logs, length crawling 5½ inches, setae . . . , dorsal surface purplish *brown* (?) getting gradually lighter as pass back, ventral surface reddish in front of clitellum dull flesh colour behind. *Moves* (?) body about *like* (?) a perichaete when irritated. Clitellum not distinguishable when alive. Setae visible as white spots, body round not angular, male opening pink accessory in front of and behind. Accessory visible in living as white glandular eclipse with darker centre.

b. c. (Body cavity?) fluid white in spirit.'

Cryptodrilus victoriae var. a Spencer, 1892

Proc. Roy. Soc. Vict. 4: 140, not figured

TYPE SPECIMENS OF VARIETY: G37, a dissected entire specimen and a long, median, post-clitellar fragment. Reasonable.

LOCALITY: Tanjil Track, Thompson Valley, Vict., collected November 1891.

SPENCER NUMBER: C sp? 10 (p. 7).

NOTES: This may be a subspecies but must await revision to elucidate its status.

Cryptodrilus victoriae var b Spencer, 1892

Proc. Roy. Soc. Vict. 4: 140, not figured.

TYPE SPECIMENS OF VARIETY: G38, a dissected entire specimen and a long, median, post-clitellar fragment. Reasonable.

LOCALITY: Vict., 'exact locality not known'. This suggests that Spencer was not the collector, no date.

SPENCER NUMBER: C sp? 7 V (p. 7).

NOTES: This may be a subspecies but must await revision to elucidate its status.

Cryptodrilus wellingtonensis Spencer, 1895

Proc. Roy. Soc. Vict. 7: 43-44, figs. 25-27.

SYNTYPE: G75, one entire dissected specimen. Poor (hardened).

LOCALITY: Hobart, Tasm. The specimen was collected by A. Morton in August 1892. The type description specifies Mt Wellington as the locality, while the label in Spencer's handwriting refers to Hobart.

SPENCER NUMBER: C sp 11 T (p. 8).

NOTES: G75 has not been previously recognized as type material. In the same

jar as the specimen is an unattached metal tag bearing the number 'TMS 1048'. Its significance is not known.

Cryptodrilus willsiensis Spencer, 1892

Proc. Roy. Soc. Vict. 4: 140-141, figs. 22-24, 70.

SYNTYPES: G52, five fragments, four of which have been dissected. Reasonable.

LOCALITY: Mt Wills, Vict., collected by T. Lidgcy, no date.

SPENCER NUMBER: C sp 16 a ? (p. 7). The original Spencer label is no longer with the specimen.

Genus **Digaster** Perrier, 1872

Digaster brunneus Spencer, 1900

Proc. Roy. Soc. Vict. 13: 66, figs. 103-105.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Gayndah, Qd., no collector or date.

SPENCER NUMBER: D sp 3 Q (p. 13).

Digaster gayndahensis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 67, figs. 106-108.

Rec. Aust. Mus. 26: 96-98, figs. 3A-B.

LECTOTYPE: G99, a dissected entire specimen. Length in spirit 65 mm. Reasonable.

PARALECTOTYPE: G1449, a small dissected entire specimen formerly included with G99. Reasonable.

LOCALITY: From scrub behind Gayndah, Qd., collected in October 1891.

SPENCER NUMBER: *Digaster* sp ? 1 Q (p. 13), G99). D sp ? 2 Q (p. 13).

NOTES: Jamieson (1963) worked with these specimens and noted 'the dissected specimen is the holotype and the undissected specimen a paratype'. However, as Spencer did not designate a primary type, no *holotype* can exist. In his notes Spencer records both '*Digaster* sp ? 1 Q' and '*Digaster* sp ? 2 Q' as being this species. G100 bears the Spencer number '*Digaster* sp ? 2 Q' but Jamieson records G100 as the type of *Digaster minor* (see below) and records a Spencer number of '*Digaster* sp. 2 Q'. The Spencer notes were not available to him and it is likely that he overlooked or did not know the significance of the question mark in the number. In the Spencer notes (p. 13) the number for *D. minor* is M sp 2 Q. Specimens with this number are not present in the collection. Jamieson assumes G100 to be type material of *D. minor* and uses it to extend the type description and reinforce it as a separate species. In view of the newly rediscovered Spencer notes, this must now be doubted and G100 be considered as the questionably syntype material of *Digaster gayndahensis*.

Digaster minor Spencer, 1900

Proc. Roy. Soc. Vict. 13: 65-66, figs. 100-102.

Rec. Aust. Mus. 26: 105-106, fig. 6.

TYPE SPECIMEN: None present. Jamieson records G100 as type material of this species but it is now considered the type material of *Digaster gayndahensis* (see above).

LOCALITY: Gayndah, Qd., no date or collector.

SPENCER NUMBER: M sp 2 Q (p. 13). G100 *Digaster* sp ? 2 Q.

Genus **Diplorema** Spencer, 1900**Diplorema fragilis** Spencer, 1900

Proc. Roy. Soc. Vict. 13: 31-32, figs. 4-6.

SYNTYPES: G31, two complete specimens and two fragments. Fair. G101, three complete specimens. Fair.

LOCALITY: G31, Gayndah, Qd., collected September 1891. G101, Cooran, Qd., collected October 1891.

SPENCER NUMBER: G31, *Crypto* sp 6 O (p. 7). G101, C ? sp ? 6 O (p. 15).

NOTES: The specimens were not previously known as type material.

Genus **Diporochoaeta** Beddard, 1890**Diporochoaeta arnoldi** Spencer, 1900

Proc. Roy. Soc. Vict. 13: 61-62, figs. 88-90.

LECTOTYPE: G203, a dissected entire specimen. Length in spirit 60 mm. Reasonable.

PARALECTOTYPES: G1411, seven complete specimens formerly included with G203. Reasonable.

LOCALITY: Mt Arnold near Marysville, Vict., under logs and sheets of bark in a small swamp. Collected February 1894.

SPENCER NUMBER: Peri sp X 5 (p. 29).

NOTES: An original descriptive note is included with the lectotype: 'Mt Arnold, near Marysville, Victoria. Length 3 ins. dull purplish brown dorsally, darker anteriorly. Clitellum dull yellow-brown. Setae fairly clear. Dirty dark flesh colour ventrally, extent shows through. Under log. Male pore visible as slit on papilla with 2 other papillae to outer side. b.c. fluid white. Feb./94.'

Diporochoaeta davallia Spencer, 1900

Proc. Roy. Soc. Vict. 13: 52-53, figs. 61-63.

LECTOTYPE: G121, a dissected entire specimen. Length in spirit 200 mm. Reasonable.

PARALECTOTYPE: G1412, one complete specimen and one posterior fragment formerly included with G121. Reasonable.

LOCALITY: Fern Tree Gully, Vict., no date.

SPENCER NUMBER: 'c' or 'Diporochoaeta c Fern Tree Gully' (p. 16).

OTHER SPECIMENS: G587 contains one dissected specimen in reasonable condition, but without information.

Diporochoaeta euzona Spencer, 1900

Proc. Roy. Soc. Vict. 13: 55-56, figs. 70-72.

LECTOTYPE: G120, a dissected entire specimen. Length in spirit 160 mm. Reasonable.

PARALECTOTYPES: None, but the type description suggests that more than one specimen was collected.

LOCALITY: Warrandyte, Vict., collected by C. M. Maplestone, no date.

SPENCER NUMBER: 3° (p. 16).

Diporochoaeta frosti Spencer, 1900

Proc. Roy. Soc. Vict. 13: 62-63, figs. 91-93.

LECTOTYPE: G117, a dissected, entire specimen. Length in spirit 45 mm. Reasonable.

PARALECTOTYPES: None.

LOCALITY: Mt Baw Baw, Vict., collected by C. Frost in January 1893.

SPENCER NUMBER: Peri sp X 8 (p. 16).

NOTES: The specimen has not previously been recognized as type material.

Diporochoaeta grandis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 63-64, figs. 94-96.

TYPE SPECIMENS: None, presumed lost.

LOCALITY: Upper Endeavour River, Qd., collected by C. French and D. Le Soeuf, no date.

SPENCER NUMBER: Not known.

OTHER SPECIMENS: G184 records material collected at Cairns, Qd., and donated to the National Museum 24 April 1909. This material is now missing and presumed lost.

Diporochoaeta lindti Spencer, 1900

Proc. Roy. Soc. Vict. 13: 54-55, figs. 67-69.

TYPE SPECIMENS: None, presumed lost.

LOCALITY: Black Spur, Vict., found under logs at 2,000 ft, no date.

SPENCER NUMBER: Peri sp a (p. 16).

Diporochoaeta manni Spencer, 1900

Proc. Roy. Soc. Vict. 13: 60-61, figs. 85-87.

LECTOTYPE: G118, a dissected entire specimen. Length in spirit 74 mm. Reasonable.

PARALECTOTYPES: G1423, five complete specimens and three fragments formerly included with G118. Reasonable.

LOCALITY: S. Warragul, Vict., collected near a creek in black alluvial soil by W. Mann, July 1892.

SPENCER NUMBER: Peri sp X 10 (p. 29).

NOTES: The specimens have not previously been recognized as type material.

Diporochoaeta maplestoni Spencer, 1900

Proc. Roy. Soc. Vict. 13: 64-65, figs. 97-99.

SYNTYPES: G122, several fragments, probably no longer determinable. Bad.

LOCALITY: Warrandyte, Vict., collected by C. M. Maplestone, no date.

SPENCER NUMBER: 1° Warrandyte (p. 16).

NOTES: The specimens were questionably regarded as type material but are now considered original type material.

Diporochaeta mediocincta Spencer, 1900

Proc. Roy. Soc. Vict. 13: 53-54, figs. 64-66.

LECTOTYPE: G124, a dissected entire specimen. Length in spirit 55 mm. Reasonable.

PARALLECTOTYPES: None, although the description suggests more than one specimen was found.

LOCALITY: S. Warragul, Viet., collected by W. Mann, July 1892.

SPENCER NUMBER: Peri sp 1 a V (pp. 16, 29).

Diporochaeta nemoralis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 59-60, figs. 82-84.

TYPE SPECIMENS: None, presumed lost.

LOCALITY: Neerim, Viet., found under logs in the eucalypt forests, no date.

SPENCER NUMBER: Peri sp X 13 (pp. 16, 29).

Diporochaeta notabilis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 57-58, figs. 76-78.

TYPE SPECIMENS: None, presumed lost.

LOCALITY: Dimboola, Viet., no date.

SPENCER NUMBER: Peri sp 2 a V (pp. 16, 29).

Diporochaeta richardi Spencer, 1900

Proc. Roy. Soc. Vict. 13: 58-59, figs. 79-81.

LECTOTYPE: G220, a dissected entire specimen. Length in spirit 93 mm. Reasonable.

PARALLECTOTYPE: G1413, one complete specimen formerly included with G220. Reasonable.

LOCALITY: Loch, Viet., collected July 1891.

SPENCER NUMBER: Peri sp 13 (pp. 16, 29).

Diporochaeta telopea Spencer, 1900

Proc. Roy. Soc. Vict. 13: 56-57, figs. 73-75.

TYPE SPECIMENS: G119, not present, presumed lost.

LOCALITY: Waratah Bay, Viet., collected by W. Mann, January 1891.

SPENCER NUMBER: Peri sp ? 34 (pp. 16, 29).

NOTES: A filing card indicates that a single specimen, known to be the type, was in the National Museum under G119.

Genus **Fletcherodrilus** Michaelson, 1891**Fletcherodrilus miens major** Spencer, 1900

Proc. Roy. Soc. Vict. 13: 44, (no fig.).

LECTOTYPE: G116, a dissected entire specimen. Length in spirit 215 mm. Reasonable.

PARALLECTOTYPES: G1437, two dissected entire specimens and two fragments, formerly included with G116. Reasonable.

LOCALITY: Gayndah, Qd., collected from cedar scrub October 1891.

SPENCER NUMBER: Crypto sp 1 Q (p. 9).

OTHER SPECIMENS: G115 contains one dissected fragment, two entire specimens and five fragments in good condition from 'Queensland'.

Genus **Megascolex** Templeton, 1844

Megascolex andersoni Spencer, 1900

Proc. Roy. Soc. Vict. 13: 44-45, figs. 37-39.

LECTOTYPE: G105, a dissected entire specimen. Length in spirit 110 mm. Reasonable.

PARALECTOTYPES: G1414, five complete specimens, formerly included with G105. Reasonable.

LOCALITY: Gerangamete, Vict., no date. The original label reads 'Kerangamete'.

SPENCER NUMBER: Peri sp X 11 (pp. 22, 29).

Megascolex fardyi Spencer, 1900

Proc. Roy. Soc. Vict. 13: 46-47, figs. 43-45.

SYNTYPES: G107, three complete specimens. Reasonable.

LOCALITY: Heathcote Range, Vict., collected at 900 ft by T. Lidgley, no date.

SPENCER NUMBER: Peri sp 1 X (pp. 22, 29).

NOTES: These are not the type specimens of the MSS as the latter were collected at Heathcote by J. H. Fardy and Spencer. However, it is reasonable to assume they are syntypes as they are from the type locality, identified by Spencer and the Spencer Number agrees with that of the original material. The latter appears to be lost as there is no record of it in the National Museum.

Megascolex illidgei Spencer, 1900

Proc. Roy. Soc. Vict. 13: 50-51, figs. 58-60.

SYNTYPE: G110, one entire specimen. Reasonable.

LOCALITY: Gayndah, Qd., collected on September 23 1891. The type description records Cooran, Qd., as the locality.

SPENCER NUMBER: Peri s ? Q (pp. 22, 29).

NOTES: This specimen has not previously been recognized as a type and is recorded here as a questionable type material because of the locality.

Megascolex larpentensis, 1900

Proc. Roy. Soc. Vict. 13: 45-46, figs. 40-42.

LECTOTYPE: G106, a dissected entire specimen. Length in spirit 55 mm. Reasonable.

PARALECTOTYPES: G1415, five complete specimens, formerly included with G106. Reasonable.

LOCALITY: Gerangamete, Vict., collected by R. Anderson in June 1894. The original label is spelt 'Kerangamete'.

SPENCER NUMBER: Peri sp X 12 (pp. 22, 29).

NOTES: The museum filing card notes '8 specs' which suggest that some of the material has been lost.

Megascolex lobulatus Spencer, 1900

Proc. Roy. Soc. Vict. 13: 48-49, figs. 52-54.

LECTOTYPE: G229, one dissected specimen in two parts. Length in spirit 45 mm. Reasonable.

PARALECTOTYPES: G1432, nine complete specimens and two fragments formerly included with G229. Reasonable.

LOCALITY: Nar-Nar-Goon, Vict., collected by H. Giles in October 1892.

SPENCER NUMBER: Peri sp X 6 (pp. 22, 29).

NOTES: The specimens have not previously been recognized as type material.

Megascolex minor Spencer, 1900

Proc. Roy. Soc. Vict. 13: 49-50, figs. 55-57.

SYNTYPES: G103, seven complete specimens and one fragment. Poor (dried). G104, Several fragments. Poor (fragmented).

LOCALITY: Cooran, Od., collected in October 1891.

SPENCER NUMBER: Peri sp 3 Q (p. 29). Both sets of specimens bear the same number and information.

NOTES: The specimens have not previously been recognized as type material. Further type material 'Peri sp 7 Q' has not been found in the National Museum and is presumed lost. The filing card for G103 records '14 specs'. The whereabouts of the missing specimens is not known, but are presumably also lost. The number originally present in G104 was three, which are now indeterminable.

OTHER SPECIMENS: G102 contains two poor specimens bearing the Spencer number 'Peri sp 3 ? Q', collected from Gayndah in 1891.

Megascolex montanus Spencer, 1900

Proc. Roy. Soc. Vict. 13: 48, figs. 49-51.

LECTOTYPE: G109, a dissected anterior fragment and a dissected posterior fragment, which appear to be from the same specimen. Reasonable.

PARALECTOTYPE: G1416, one complete specimen, formerly included with G109. Reasonable.

LOCALITY: Mount Baw Baw, Vict., collected by C. Frost in January 1893.

SPENCER NUMBER: Peri sp X 7 (pp. 22, 29).

Megascolex pritchardi Spencer, 1900

Proc. Roy. Soc. Vict. 13: 47, figs. 46-48.

LECTOTYPE: G108, a dissected entire specimen. Length in spirit 58 mm. Reasonable.

PARALECTOTYPES: G1417, six complete specimens and a short fragment formerly included with G108. Reasonable.

LOCALITY: Mornington, Vict. An original label notes the locality as 'Mornington?'. The specimens were collected by G. B. Pritchard in 1892.

SPENCER NUMBER: Peri sp X 2 (pp. 22, 29).

NOTES: The museum filing card notes '11 specs' which suggests that some of the material has been lost.

Megascolex terangiensis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 51-52, (not figured).

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Terang, Vict., no date.

SPENCER NUMBER: Peri sp ? 33 (p. 29).

Genus **Megascolides** McCoy, 1878**Megascolides attenuatus** Spencer, 1892

Proc. Roy. Soc. Vict. 4: 155, figs. 61-62, 82.

LECTOTYPE: G176, an undissected specimen. Length in spirit 128 mm. Good.

PARALECTOTYPES: G1438, two dissected specimens, one complete specimen and eight fragments, formerly included with G176. Fair to good.

LOCALITY: Warragul, Vict., collected on 22nd April 1888 'from gullies some distance underground and found with other species of *Megascolides*'.

SPENCER NUMBER: Mega sp ? 8 (p. 23).

NOTES: The Spencer number is not with the specimen nor is it with any other specimen in the collection. A label in Spencer's hand-writing bears the name.

Megacolides bassanus Spencer, 1895

Proc. Roy. Soc. Vict. 7: 46-47, figs. 34-36.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: King Island, Bass Strait, Tasm., no date.

SPENCER NUMBER: Mega sp ? 3-2 (p. 23).

Megascolides cameroni Spencer, 1892

Proc. Roy. Soc. Vic. 4: 144-145, figs. 34-36, 74.

LECTOTYPE: G167, an undissected entire specimen. Length in spirit 215 mm. Good.

PARALECTOTYPES: G1439, six dissected fragments which may be from a single specimen and one complete specimen, formerly included with G167. Good.

LOCALITY: Croajingolong, Vict., collected in January 1889.

SPENCER NUMBER: Mega sp ? (1) (p. 23).

NOTES: A label in the jar indicates type material. This is over-looked on the filing card.

Megascolides diaphanus Spencer, 1900

Proc. Roy. Soc. Vict. 13: 32-34, figs. 7-9.

SYNTYPES: G179, two complete worms and several fragments, some of which have been dissected. Fair.

LOCALITY: West Dimboola, Vict., near Mission Station. The specimens were probably collected in October 1892. The type description (p. 34) notes locality thus: 'Near to the Ebenezer Mission Station, Mallee District, Victoria. Found in very moist earth on flats close to the River Wimmera . . . The Flats on which the worm was found are liable to be flooded at rainy seasons but at other times perfectly dry', while the label in Spencer's writing notes the locality: 'Smaller worms

from side of pool near station (Dimboola) many of them from mud under the water, all in damp clayey earth'.

SPENCER NUMBER: C sp 4a V (p. 7). Missing from the jar.

Megascolides eucalypti Spencer, 1900

Proc. Roy. Soc. Vict. 13: 35-36, figs. 13-15.

LECTOTYPE: G185, a dissected entire specimen. Length in spirit 140 mm. Reasonable.

PARALECTOTYPES: G1440, three dissected specimens, eight complete specimens and one long fragment, formerly included with G185. Reasonable.

LOCALITY: Noojee, South Warragul, Vict., no date.

SPENCER NUMBER: Mega sp XI (p. 23).

NOTES: The specimens have not been previously recorded as type material.

Megascolides hulmei Spencer, 1892

Proc. Roy. Soc. Vict. 4: 147-148, figs. 40-42, 76.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Dandenong Ranges, Vict., collected by J. Hulme, no date.

SPENCER NUMBER: Mega sp ? 7 (p. 23).

OTHER SPECIMENS: G165, collected by C. Pioneer in 1891, is also missing and is presumed lost. Although it had been given the same Spencer number as the type, it is not type material as its locality is recorded as Victoria, and the collector differs.

Megascolides incertus Spencer, 1892

Proc. Roy. Soc. Vict. 4: 151-152, figs. 52-54, 80.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Vict., exact locality not known.

SPENCER NUMBER: Not known.

OTHER SPECIMENS: G174 contains many specimens. The condition is poor as the specimens are generally fragmenting. There is no further information available. This could be type material. G175, one dissected specimen and two entire specimens from Black Spur, Vict., collected October 1895. This is in good condition but could not be type material.

Megascolides insignis Spencer, 1892

Proc. Roy. Soc. Vict. 4: 146-147, figs. 37-39, 75.

SYNTYPES: G166, two dissected specimens, two entire specimens and two fragments. Reasonable.

LOCALITY: (From the type description) Dandenong Ranges, Vict., collected by J. Hulme, no date. Specimens G166 were collected by C. Pioneer on 30 October 1890, the locality being given as 'Victoria'.

SPENCER NUMBER: Mega sp ? 3 (p. 23).

NOTES: No specimens have been previously recognized as type material. Specimens G166 were not collected by Hulme and may not have come from the Dandenong Ranges, but they have been identified by Spencer and appear to have been

considered in the preparation of the MSS as they bear the appropriate Spencer number.

Megascolides manni Spencer, 1892

Proc. Roy. Soc. Vict. 4: 149-150, figs. 46-48, 78.

LECTOTYPE: G158, a dissected entire specimen. Length in spirit 250 mm. Good.

PARALECTOTYPES: G1441, a dissected entire specimen, one complete specimen and one fragment, formerly included with G158. Good.

LOCALITY: S. Warragul, Vict., collected by W. Mann in July 1891.

SPENCER NUMBER: Mega sp ? 13 (p. 23).

Megascolides manni variabilis Spencer, 1892

Reference: as for stem species.

SYNTYPES: G163, a number of fragments. Bad (hardened, shrivelled, black fragments).

LOCALITY: S. Warragul, Vict., collected by W. Mann, July 1891.

SPENCER NUMBER: Mega sp ? 12 (p. 23).

OTHER SPECIMENS: G164, collected in S. Warragul, Vict., by W. Mann in July 1892; contains 15 complete specimens and four fragments.

Megascolides obscurus Spencer, 1892

Proc. Roy. Soc. Vict. 4: 148-149, figs. 43-45, 77.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Dandenong Ranges, Vict., collected by J. Hulme, no date.

SPENCER NUMBER: Mega sp ? 4 (p. 23).

Megascolides punctatus Spencer, 1900

Proc. Roy. Soc. Vict. 13: 37-38, figs. 19-21.

LECTOTYPE: G180, an undissected entire specimen. Length in spirit 145 mm. Good.

PARALECTOTYPES: G1442, two dissected entire specimens, eight complete specimens and three fragments, formerly included with G180. Reasonable to good.

LOCALITY: Warrandyte, Vict., no date.

SPENCER NUMBER: Mega 2° (p. 23).

Megascolides roseus Spencer, 1892

Proc. Roy. Soc. Vict. 4: 153-154, figs. 58-60, 81.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Warragul, Vict., found by Spencer about one foot underground, no date.

SPENCER NUMBER: Mega sp 8a (p. 23).

Megascolides simsoni Spencer, 1895

Proc. Roy. Soc. Vict. 7: 45-46, figs. 31-33.

LECTOTYPE: G182, an entire undissected specimen. Length in spirit 45 mm. Good.

PARALECTOTYPES: None present.

LOCALITY: Launceston, Tas., collected by A. Simson in February 1892.

SPENCER NUMBERS: Mega sp 1 Tas., C sp 2 Tas. (p. 23).

NOTES: The specimen has not previously been recognized as a type but bears the Spencer number C sp 2 Tas.

Megascalides sinuosus Spencer, 1892

Proc. Roy. Soc. Vict. 4: 152-153, figs. 55-57.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Dandenong Ranges, Vict., collected by J. Hulme, no date.

SPENCER NUMBER: Mega sp ? 6 (p. 23).

OTHER SPECIMENS: G177 contains one specimen and numerous fragments in very bad condition. They were collected by C. Pioneer in October 1890 and bear the Spencer number of the type material. They could therefore have been considered in preparation of MSS but no locality is recorded.

Megascalides steeli Spencer, 1900

Proc. Roy. Soc. Vict. 13: 34-35, figs. 10-12.

LECTOTYPE: G168, an entire, dissected specimen. Length in spirit 125 mm. Reasonable.

PARALECTOTYPES: G1418, two fragments, formerly included with G168. Reasonable.

LOCALITY: Warragul, Vict., collected by T. Steel in April 1892.

SPENCER NUMBER: Mega sp la V (p. 23).

Megascalides tisdalli Spencer, 1900

Proc. Roy. Soc. Vict. 13: 36-37, figs. 16-18.

LECTOTYPE: G178, an entire dissected specimen. Length in spirit 85 mm. Reasonable.

PARALECTOTYPES: None present.

LOCALITY: Walhalla, Vict., collected by H. R. Hogg in July 1892.

SPENCER NUMBER: C sp 2a V (pp. 7, 23).

NOTES: The filing card refers to 'spees.'. Any other specimens that may have been present are now missing. The position of the gizzard is incorrectly noted in the text (p. 37) due to a misprint. Fig. 17 is correct in this respect.

Megascalides victoriensis Spencer, 1892

Proc. Roy. Soc. Vict. 4: 151, figs. 49-51, 79.

SYNTYPES: G181, many fragments. Very bad.

LOCALITY: Vict., collector unknown, January 1890. Spencer wrote: 'Victoria (Locality?)' and 'Left at Uni. at time of A.A.A.S. Jan./90'.

SPENCER NUMBER: Mega sp 11a (p. 23).

Megascalides volvens Spencer, 1900

Proc. Roy. Soc. Vict. 13: 39-40, figs. 25-27.

SYNTYPES: G590, three complete specimens. Bad. (dried).

LOCALITY: (From description) River Yarra, Vict., collected by C. Frost, no date. G590, Yarra Track, Vict., collected by E. Anderson, no date.

SPENCER NUMBER: C 3a V (pp. 7, 23).

Megascolides warragulensis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 38-39, figs. 22-24.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: S. Warragul, Vict., no date.

SPENCER NUMBER: Mega sp X2 (p. 23).

Genus **Perichaeta** Schmarda, 1861

Perichaeta alsophila Spencer, 1893

Proc. Roy. Soc. Vict. 5: 17-19, figs. 10-12.

SYNTYPES: G291, one dissected entire specimen, two complete specimens and two fragments. Poor (hardened and shrivelled).

LOCALITY: Fern Tree Gully, Vict., collected March 1892.

SPENCER NUMBER: Peri sp 32 (p. 28).

Perichaeta copelandi Spencer, 1893

Proc. Roy. Soc. Vict. 5: 2-3, figs. 52-54, 76.

LECTOTYPE: G186, a dissected entire specimen. Length in spirit 83 mm. Good.

PARALECTOTYPES: G1443, two dissected entire specimens, two complete specimens and two fragments, formerly included with G186. Good. G187, three complete specimens and one fragment. Good. G188, three complete specimens and three fragments. Reasonable. G189, one large undissected specimen. Reasonable. G190, three fragments, one dissected. Reasonable.

LOCALITY: Warragul Dist., Vict. G187 collected Warragul, no date; G188 collected Warragul (?), no date; G189 collected Warragul, September 1892; G190 collected Loch, S. Gippsland, July 1891; G186 collected Ellinbank, S. Warragul, July 1891; G186 collected by W. Mann; the remainder are assumed to have been collected by Spencer.

SPENCER NUMBERS: Peri sp? 6 = G190, Peri sp? 8 = G186, Peri sp? 15 = G187 and G188 (p. 28). No number is included with G189.

NOTES: None of the material has been previously recognized as type material. Four jars bear Spencer numbers which suggest that they have been used in the preparation of the MSS. Three specimens are questionable types because of the locality. G189, while not having a Spencer number (probably lost), was collected from the type locality, identified by Spencer and has (included in the jar) the following note by Spencer: 'Dorsal surface purple. Clitellum pink, very distinct. Ventral surface dull cream. Setae distinct, especially in front of clitellum as white spots. Length crawling, 8 inches, width $\frac{1}{4}$ inch.'

OTHER SPECIMENS: G192 includes two complete specimens and two fragments collected in the type locality, no date or collector being recorded. G191 contains one specimen and a fragment with no locality, date or collector. G206 contains one dissected specimen from S. Warragul, no date or collector recorded.

Perichaeta dendyi Spencer, 1893

Proc. Roy. Soc. Vict. 5: 12-13, figs. 49-51, 77.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Healesville, Vict., collected by A. Dendy, no date.

SPENCER NUMBER: P sp ? 20 (p. 28).

Perichaeta dicksonia Spencer, 1893

Proc. Roy. Soc. Vict. 5: 16-17, figs. 7-9.

SYNTYPE: G221, one dissected anterior fragment. Poor (badly hardened).

LOCALITY: G221 was collected from Dandenong by Hill on March 9th, 1892. The type locality is Fern Tree Gully, under logs, no date or collector recorded.

SPENCER NUMBER: P sp 31 ? (p. 28). This number is not with specimen G221 nor has it been found with any other specimen in the collection.

Perichaeta dilwynnia Spencer, 1895

Proc. Roy. Soc. Vict. 7: 50-51, figs. 46-48.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Dee Bridge, Tasm., no date.

SPENCER NUMBER: P sp 4 T (p. 27).

Perichaeta dubia Spencer, 1893

Proc. Roy. Soc. Vict. 5: 14-15, figs. 46-48, 67.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: S. Warragul, Vict., collected by W. Mann, no date.

SPENCER NUMBER: Peri sp ? 18 (p. 28).

Perichaeta fielderi Spencer, 1893

Proc. Roy. Soc. Vict. 5: 19-20, figs. 19-21, 64.

LECTOTYPE: G224, a dissected entire specimen. Length in spirit 100 mm. Good.

PARALECTOTYPES: G1444, two dissected specimens and one fragment, formerly included with G224. Good. G222, two complete specimens. Good. G223, two complete specimens and nine fragments. Good. G225, three dissected entire specimens, 18 complete specimens and 11 fragments. Good.

LOCALITY: Spencer named three localities, all in the same general area of Victoria:

1. Fern Tree Gully, collected by W. Fielder and W. Mann, May 1891 (G224).
2. Narre Warren, collected July 1891 (G223, G225), also by C. French and Spencer.
3. Sassafras Gully, collected by J. Shephard, November 1891 (G222).

SPENCER NUMBER: Peri sp 3, Peri sp ? 9 (p. 28). G224 bears the number 'Peri sp ? 3' which is probably synonymous with 'Peri sp 3' while the number with G225 is now missing. G222 and G223 have no Spencer number.

NOTES: The specimens have not previously been regarded as type material. There is slight doubt in one, due to '?' in the Spencer number and in the others due to the absence of Spencer numbers. Spencer is known to have collected type material from Narre Warren at about the time recorded, and Shephard from Sassafras Gully. It is probable that this is the missing material 'Peri sp ? 9'.

OTHER SPECIMENS: G226 has two entire dissected specimens, two whole specimens and a fragment. They are in reasonable condition and were collected by Hennell in July 1892 at Dandenong Creek, Vict. G227 contains one entire dissected specimen and seven fragments with no data.

Perichaeta frenchii Spencer, 1893

Proc. Roy. Soc. Vict. 5: 9-10, figs. 31-33, 79.

LECTOTYPE: G210, one dissected entire specimen. Length in spirit 70 mm. Reasonable.

PARALECTOTYPES: G212, one dissected entire specimen, 15 complete specimens and seven fragments. Poor. G1445, one entire dissected specimen, six complete specimens and 11 fragments, formerly included with 210. Reasonable.

LOCALITY: The type locality is given as Loch, S. Gippsland, the collector is assumed to be Spencer, no date recorded; Narre Warren, collectors Spencer and C. French, no date; Waratah Bay, collector Mann, no date. Localities of specimens in the collection are as follows: G212 Loch, S. Gippsland, Vict., collected July 1891; G210 Narre Warren, S. Gippsland, Vict., collected July 1892.

SPENCER NUMBER: Peri sp ? 21 (p. 28). G212 bears this number. G210 has the number 'Peri sp? 17 Narre Warren', not recorded in the Spencer notes as 'in MSS'.

NOTES: The specimens have not previously been known to be type material. While the Spencer notes suggest that G212 was the material used (at least in part) for preparation of the MSS, it would appear reasonable, from the broad type locality, that he also made use of the material in G210. The latter specimens assume some importance as they were collected and identified by Spencer from the type locality, and they are the only remaining material in reasonable condition from this locality.

OTHER SPECIMENS: G209 contains one specimen in reasonable condition from Gembrook, Vict., collected by D. le Souef, March 1892. G213 contains several specimens in very bad condition, and said to be immature, but no other data is included.

Perichaeta frosti Spencer, 1893

Proc. Roy. Soc. Vict. 5: 20-21, figs. 13-15, 71.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Croajingolong, E. Gippsland, Vict., no date.

SPENCER NUMBER: Peri sp ? 4 (p. 28).

Perichaeta goonmurk Spencer, 1893

Proc. Roy. Soc. Vict. 5: 21-23, figs. 16-18.

LECTOTYPE: G228, a dissected entire specimen. Length in spirit 95 mm. Reasonable.

PARALECTYPES: G1421, one complete specimen and one fragment formerly included with G228. Reasonable.

LOCALITY: The description notes: 'Locality Croajingolong, Vict. Under logs at head of gully, elevation about 3500 feet'. Collected January 1889.

SPENCER NUMBER: Peri sp ? 2 (p. 28).

Perichaeta hallii Spencer, 1893

Proc. Roy. Soc. Vict. 5: 7-8, figs. 40-42, 69.

SYNTYPE: G205, one specimen. Very bad.

LOCALITY: Mt Barker, near Castlemaine, Vict., collected by T. S. Hall, no date.

SPENCER NUMBER: Peri sp ? 32 (p. 28).

NOTES: The museum filing card records '4? spees'. If there were four, three of the specimens are now lost.

OTHER SPECIMENS: G201 contains two entire dissected specimens and four complete specimens in reasonable condition collected at Derrinal, Vict., collector and date unknown. G202 contains one entire dissected specimen and eight complete specimens collected at Big Hill, W. Bendigo, Viet., by Spencer (?) August 1892. They are in good condition. G204 contains a fragmented specimen collected at Maldon, Vict., by D. le Socuf. The Spencer number is 'Peri sp ? 33' but the specimen is of little value.

Perichaeta hoggii Spencer, 1893

Proc. Roy. Soc. Vict. 5: 6-7, figs. 28-30, 80.

LECTOTYPE: G199, a dissected entire specimen. Length in spirit 95 mm. Good.

PARALECTOTYPES: G1446, eight complete specimens formerly included with G199. Good. G198, 11 complete specimens and three fragments. Reasonable. G200, one dissected entire specimen and four complete specimens. Reasonable.

LOCALITY: G198 and G199 were collected from Mt. Macedon, Vict., by Speneer and H. R. Hogg, June 1891. G200 were collected from Healesville, Vict., by Dendy in January-February 1892. The type material was collected by Dendy but it is not certain that this is the same as specimens in G200.

SPENCER NUMBER: Peri sp ? 29 (= G198 and G199), Peri sp ? 19 (= Healesville specimens ?) (p. 28), Peri sp ? 26 (= G200) (Not listed).

NOTES: The specimens have not been previously recognized as type material. Healesville material bearing either of the above Spencer numbers recorded for the MSS is no longer in the collection and is presumed lost. However G200 bearing the number 'Peri sp ? 26' is included here as type material because it was obtained by the original collector in the same locality about the same time.

Perichaeta irregularis Spencer, 1895

Proc. Roy. Soc. Vict. 7: 53-54, figs. 52-54.

LECTOTYPE: G288, a dissected entire specimen. Length in spirit 90 mm. Reasonable.

PARALECTOTYPES: None present.

LOCALITY: King River, Tasm., collected by C. G. Officer in January 1894.

SPENCER NUMBER: Peri sp. X 15 (p. 28).

Perichaeta lateralis Spencer, 1893

Proc. Roy. Soc. Vict. 5: 11-12., figs. 55-58.

LECTOTYPE: G214, a dissected entire specimen. Length in spirit 80 mm. Good.

PARALECTOTYPES: G1424, nine complete specimens and one fragment, formerly included with G214. Good.

LOCALITY: Castlemaine, Vict., collected by T. S. Hall, no date. Spencer records a second syntype locality—Goulburn Valley, Tallarook, collector A. H. S. Lucas, no date.

SPENCER NUMBER: Peri sp 12 ? (p. 28). Specimens G214 have the Spencer number 'Peri sp 12' which is not recorded in the notes.

NOTES: There is some doubt that these specimens are the original types, although the Spencer number may be an error. They were collected by the original collector in the type locality and identified by Spencer.

OTHER SPECIMENS: G215 contains one dissected entire specimen and three complete specimens in good condition collected at Mt Barker, Castlemaine, Vict., by T. S. Hall, no date or Spencer number recorded.

Perichaeta lochensis Spencer, 1893

Proc. Roy. Soc. Vict. 5: 13-14, figs. 1-3.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Loch, S. Gippsland, Vict., collected by Spencer, no date.

SPENCER NUMBER: Peri sp ? 28 (p. 28).

Perichaeta moroea Spencer, 1895

Proc. Roy. Soc. Vict. 7: 49, figs. 40-42.

SYNTYPE: G292, one dissected entire specimen. Poor (hardened).

LOCALITY: Lake St Clair district, Tasm., collected January 1893.

SPENCER NUMBER: P sp 2 T (p. 27).

Perichaeta obscura Spencer, 1893

Proc. Roy. Soc. Vict. 5: 3-5, figs. 4-6, 70.

LECTOTYPE: G195, a dissected entire specimen. Length in spirit 68 mm. Good.

PARALECTOTYPES: G1447, one entire specimen and two fragments, formerly included with G195. Good. G196, eight complete specimens and three fragments. Good. G197, one complete specimen. Good.

LOCALITY: Warragul, Vict. The specimens G195 were collected by Spencer, (no date), G196 collected February 1892, and G197 collected S. Warragul by W. Mann, 1892.

SPENCER NUMBER: Peri sp ? 22 (p. 28).

NOTES: The specimens have not been previously known as type material.

Perichaeta richea Spencer, 1895

Proc. Roy. Soc. Vict. 7: 49-50, figs. 43-45.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Mt Olympus, Tasm., collected under logs in a beech forest, no date.

SPENCER NUMBER: P sp 3 T (p. 27).

Perichaeta rubra Spencer, 1893

Proc. Roy. Soc. Vict. 5: 8-9, figs. 25-27.

SYNTYPES: G207, one dissected entire specimen, two complete specimens and two fragments. Reasonable.

LOCALITY: Tallarook, Vict., collected by A. H. S. Lucas. G207 does not include the original label with collector's name.

SPENCER NUMBER: Peri sp V (p. 28). This number is not with specimen G207, nor is it with any other specimen in the collection.

NOTES: This is questionable type material. The original label (including collector and Spencer number) is no longer with the specimens. While there is reasonable probability that this is the original type material, it cannot be considered certain in the absence of the original label.

OTHER SPECIMENS: G208 contains two complete specimens and two fragments in reasonable condition, collected by W. Shephard in October 1892.

Perichaeta scolecoidea Spencer, 1895

Proc. Roy. Soc. Vict. 7: 51-52, figs. 49-51.

LECTOTYPE: G290, a dissected entire specimen. Length in spirit 28 mm. Reasonable.

PARALECTOTYPES: G1422, two complete specimens formerly included with G290. Reasonable.

LOCALITY: King River Valley, Tasm., collected by C. G. Officer, January 1894, and recorded as being very abundant.

SPENCER NUMBER: P sp X 14 T (p. 28).

Perichaeta steelii Spencer, 1893

Proc. Roy. Soc. Vict. 5: 10-11, figs. 37-39.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Woodend, Vict., collected by T. Steel, no date.

SPENCER NUMBER: Peri sp 33 (p. 28).

Perichaeta sylvatica Spencer, 1893

Proc. Roy. Soc. Vict. 5: 5-6, figs. 34-36, 38.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Fern Tree Gully, Vict., no date.

SPENCER NUMBER: Peri sp ? 30 (p. 28).

Perichaeta tanjilensis Spencer, 1893

Proc. Roy. Soc. Vict. 5: 24-25, not figured.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Four Victorian localities are given: Gembrook, Fern Tree Gully, Dandenong, and Tanjil Track (Warburton).

SPENCER NUMBER: Peri 5°, Peri sp ? 5?, Peri sp? 10 (p. 28).

OTHER SPECIMENS: G235 contains a single specimen in near liquid condition, collected Tanjil Track, July 1891. The label bearing the Spencer number is missing from the jar; probably a syntype but its condition is so bad that it is of little scientific value.

Perichaeta tasmanica Spencer, 1895

Proc. Roy. Soc. Vict. 7: 47-48, figs. 37-39.

SYNTYPES: G289, two dissected specimens, three complete specimens and one

fragment. Poor (hardened, although the dissected specimens are slightly better than the others).

LOCALITY: Emu Bay, Tasm., collected January 1892.

SPENCER NUMBER: P sp 1 T (p. 27).

Perichaeta walhalla Spencer, 1893

Proc. Roy. Soc. Vict. 5: 15-16, figs. 43-45, 66.

TYPE SPECIMENS: Not present, presumed lost.

LOCALITY: Walhalla, Vict. The single mature specimen was collected by Dendy, no date.

SPENCER NUMBER: Peri sp ? 36 (p. 28).

Perichaeta yarraensis Spencer, 1893

Proc. Roy. Soc. Vict. 5: 23-24, figs. 61-63, 74.

LECTOTYPES G232, a dissected entire specimen. Length in spirit 130 mm. Good.

PARALECTOTYPES: G1426, two complete juvenile specimens, formerly included with G232. Poor (hardened).

LOCALITY: Warburton, Vict. G232 was collected by A. Dendy, no date. Other syntype localities are Tanjil Track near Woods Point and Warragul in Victoria. Specimens from the last two localities are presumed lost.

SPENCER NUMBER: Peri sp ? 7 (= G232), Peri sp ? 16, Peri sp ? 1, (p. 28).

NOTES: The specimens were not previously recognized as type material. Although Dendy is not mentioned as collector in the original description the presence of the correct Spencer number is taken as an indication that they were used in the preparation of the MSS.

OTHER SPECIMENS: G233 bears a number indicating that the material was used in the preparation of the MSS (Peri sp ? 16). However, it is not type material as Spencer points out that these specimens differ from the type. He regarded the material as questionable subspecies. G230 contains an entire, dissected specimen and a complete specimen in good condition collected at Fern Tree Gully, March 1892. G231 contains a dried specimen in fair condition collected at Dandenong, June 1892. G234 contains a complete specimen in good condition collected by J. Shephard, November 1891.

Genus **Trichaeta** Spencer, 1900

Trichaeta australis Spencer, 1900

Proc. Roy. Soc. Vict. 13: 30-31, figs. 1-3.

SYNTYPES: G131, three complete specimens and two dissected specimens. Poor (hardened).

LOCALITY: Narre Warren, Vict. The type material was collected from under logs in damp soil. A note on the filing card for specimen G131 states 'This appears to be a figured specimen but has no locality—is probably the type specimen'.

SPENCER NUMBER: Sp ? 6 a or Peri sp ? 6 a (p. 29).

NOTES: This material has previously been regarded as questionable type material. The Spencer label with the specimens reads 'Peri ? sp ? 6a'. While this differs

from those noted above, the specimens were identified by Spenceer. Absence of locality is a more serious difficulty.

Acknowledgements

We wish to thank Miss Leonie Convey, Museum Assistant in the Invertebrate Department, for her valuable assistance in the re-registration and re-bottling of specimens, and Mrs N. Wortley for her patience in typing the manuscript.

References

- JAMIESON, B. G. M., 1963. A revision of the earthworm genus *Digaster* (Megascolecidae, Oligochaeta). *Rec. Aust. Mus.* 26: 83-111.
- SPENCEER, W. B., 1892. Preliminary description of Victorian earthworms. Part 1—The genera *Cryptodrillus* and *Megascolides*. *Proc. Roy. Soc. Vict.* 4: 130-156.
- , 1893. Preliminary notice of Victorian earthworms, Part II. The genus *Perichaeta*. *Proc. Roy. Soc. Vict.* 5: 1-26.
- , 1895. Preliminary notes on Tasmanian earthworms. *Proc. Roy. Soc. Vict.* 7: 33-54.
- , 1900. Further descriptions of the Australian earthworms, Part I. *Proc. Roy. Soc. Vict.* 13: 29-67.